



# Rarefaction Shock Wave (RSW) Cutter for Offshore Oil-Gas Platform Removal



- Offshore oil/gas installations and sub-sea equipment must be removed when production ceases
  - Platforms stand in waters 10-3,000 feet deep
  - 50-80 lbs. of explosives needed for removal
  - Efficient techniques using less explosives only cut pipes up to 2 inches thick
- New Russian technology uses interaction of explosively-generated RSW to cut thick-walled cylindrical cross-section pipes
  - Technique requires only 9-15 lbs. of explosives
  - RSW cutter able to sever pipes several inches thick
  - RSW minimizes effects of underwater blasts on marine life
- U.S. partner will pursue offshore commercial market, starting with Gulf of Mexico and North Sea operations; Russian partner will develop other sizes/variants of RSW cutters



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